PianoPlus 100

Owner's Manual

PianoPlus 100

■The HP-100 is a Roland electronic piano which offers you excellent performance abilities.

- Extremely dynamic, yet realistic expressions are obtained owing to its Velocity Sensitivity which can change the tone color(harmonic contents) as well as volume.
- All pitches, even the lower tones sound deep, lingering and articulate.
- The Key Transpose function allows transposition to any Key yon like.
- This compact and light weighted electronic piano can be comfortably moved where you like.
- Provided with the IN, OUT and THRU sockets for MIDI, this piano can be connected to other MIDI instruments.

MODEL HP-100 MIDI Implementation

1. TRANSMITTED DATA

Status	Second	Third	Description	
1001 nnnn	0kkk kkkk	0000 0000	Note OFF	
1001 nnnn	0kkk kkkk	0vvv vvvv	Note ON kkkkkkk = 22 - 108 vvvvvvv = 1 - 127	*1
1011 nnnn	0100 0000	0111 1111	Damper ON	
1011 nnnn	0100 0000	0000 0000	Damper OFF	
1100 nnnn	0ppp pppp		Program Change ppppppp = 0 - 127	*2
1011 nnnn	0111 1011	0000 0000	ALL NOTES OFF	*3
1011 nnnn	0111 1100	0000 0000	OMNI OFF	*4
1011 nnnn	0111 1111	0000 0000	POLY ON	*4
1111 1110			Active Sensing	

Notes :
nnnn : MIDI channel number (0000 - 1111), ch-1 = 0000
Refer to Section 3.
*1 The range may change by the transposition.
Refer to Section 4.
*2 Refer to Section 5.
*3 When all keys on the keyboard are released, the ALL NOTES OFF ($Bn, $7B, 0) is sent.
*4 When power is first applied, OMNI OFF and POLY ON are sent on the BASIC channel.
When the tone is changed from the panel, and if all keys on the keyboard are not pressed, these messages are sent in the BASIC channel.

2. RECOGNIZED RECEIVE DATA

Status	Second	Third	Description	
1000 nnnn	0kkk kkkk	0vvv vvvv	Note OFF, velocity ignored	
1001 nnnn	0kkk kkkk	0000 0000	Note OFF kkkkkkk = 0 - 127 (21 - 108) *1	
1001 nnnn	0kkk kkkk	0vvv vvvv	Note ON kkkkkkk = 0 - 127 (21 - 108) *1 vvvvvvv = 1 - 127	
1011 nnnn	0100 0000	0111 1111	Damper ON	
1011 nnnn	0100 0000	0000 0000	Damper OFF	
1100 nnnn	0ppp pppp		Program Change ppppppp = 0 - 7	*2
1011 nnnn	0111 1011	0000 0000	ALL NOTES OFF	*3
1011 nnnn	0111 1100	0000 0000	OMNI OFF	*4
1011 nnnn	0111 1101	0000 0000	OMNI ON	*4
1011 nnnn	0111 1110	0000 mmmm	MONO ON	*4
1011 nnnn	0111 1111	0000 0000	POLY ON	*4
1111 1110			Active Sensing	

Notes :
*1 Note numbers outside of the range 21 - 108 are transposed to the nearest octave inside this range.
The transpose function does not affect the recognized NOTE ON / OFF.

*2 If the power is applied while the transpose switch being held down, this message may be ignored.

The assignment of received Program Change messages is as follows:
The program numbers 8 - 127 are ignored.

Prog #	Tone Color	CHORUS
0	PIANO 1	OFF
1	PIANO 2	OFF
2	PIANO 3	OFF
3	HARPSICHORD	OFF
4	PIANO 1	ON
5	PIANO 2	ON
6	PIANO 3	ON
7	HARPSICHORD	ON

*3 When the ALL NOTES OFF is recognized, all the notes which have been turned ON only by MIDI IN note ON messages are turned OFF. However, if the damper pedal is pressed or the damper ON message has been recognized, these ON notes will be turned OFF until the damper pedal is released or the Damper OFF message is received.

*4 These Mode Messages (2nd byte = 123 - 127) are also recognized as ALL NOTES OFF.

Mode Messages are recognized as follows:

	POLY ON (127)	MONO ON (126) mmmm = 1	MONO ON (126) mmmm <> 1
OMNI OFF (124)	OMNI = OFF POLY	OMNI = OFF POLY	OMNI = ON POLY
OMNI ON (125)	OMNI = ON POLY	OMNI = ON POLY	OMNI = ON POLY

3. BASIC CHANNEL SETTING

When the power is first applied, the BASIC channel is normally set to 1, and the receiver's MIDI MODE is set to the MODE 1 (OMNI ON, POLY ON).

However, the basic channel may be changed when the following key on the keyboard is pressed while the TRANSPOSE switch being held down. The receiver's MIDI MODE will be set to the MODE 3 (OMNI OFF, POLY ON).

Key	BASIC channel	OMNI
Power-up	1	ON
E 1	1	OFF
F 1	2	OFF
F# 1	3	OFF
G 1	4	OFF
G# 1	5	OFF
A 1	6	OFF
A# 1	7	OFF
B 1	8	OFF
C 2	9	OFF
C# 2	10	OFF
D 2	11	OFF
D# 2	12	OFF
E 2	13	OFF
F 2	14	OFF
F# 2	15	OFF
G 2	16	OFF

4. TRANSPOSE

When the power is first applied, the default transposition is set at 0. The following chart shows the relation of the key position and transposed value. (While the TRANSPOSE switch being held down.)

Key	Transposed value (semi tones)	Tranmitted note range
power-up	0	28 - 103
F# 5	-6	22 - 97
G 5	-5	23 - 98
G# 5	-4	24 - 99
A 5	-3	25 - 100
A# 5	-2	26 - 101
B 5	-1	27 - 102
C 6	0	28 - 103
C# 6	+1	29 - 104
D 6	+2	30 - 105
D# 6	+3	31 - 106
E 6	+4	32 - 107
F 6	+5	33 - 108

5. PROGRAM CHANGE TRANSMISSION

The following table shows the GROUP, BANK and NUMBER values related with key position which is set while the TRANSPOSE switch being held down.

Key	Related value
A 4	GROUP A
B 4	GROUP B
F# 3	BANK 1
G# 3	BANK 2
A# 3	BANK 3
C# 4	BANK 4
D# 4	BANK 5
F# 4	BANK 6
G# 4	BANK 7
A# 4	BANK 8
F 3	NUMBER 1
G 3	NUMBER 2
A 3	NUMBER 3
B 3	NUMBER 4
C 4	NUMBER 5
D 4	NUMBER 6
E 4	NUMBER 7
F 4	NUMBER 8

When one of the above-mentioned keys is pressed while the TRANSPOSE switch being held down, a PROGRAM CHANGE message will be transmitted.
The transmitted program change numbers are related with the GROUP, BANK and NUMBER values as follows.

GROUP A

NUMBER : / BANK	1	2	3	4	5	6	7	8
1	0	1	2	3	4	5	6	7
2	8	9	10	11	12	13	14	15
3	16	17	18	19	20	21	22	23
4	24	25	26	27	28	29	30	31
5	32	33	34	35	36	37	38	39
6	40	41	42	43	44	45	46	47
7	48	49	50	51	52	53	54	55
8	56	57	58	59	60	61	62	63

GROUP B

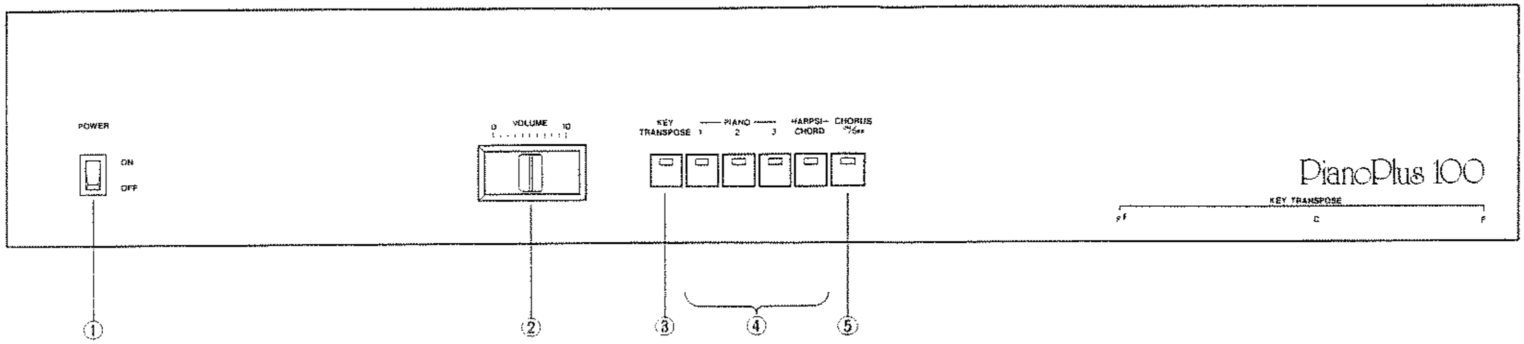
NUMBER : / BANK	1	2	3	4	5	6	7	8
1	64	65	66	67	68	69	70	71
2	72	73	74	75	76	77	78	79
3	80	81	82	83	84	85	86	87
4	88	89	90	91	92	93	94	95
5	96	97	98	99	100	101	102	103
6	104	105	106	107	108	109	110	111
7	112	113	114	115	116	117	118	119
8	120	121	122	123	124	125	126	127

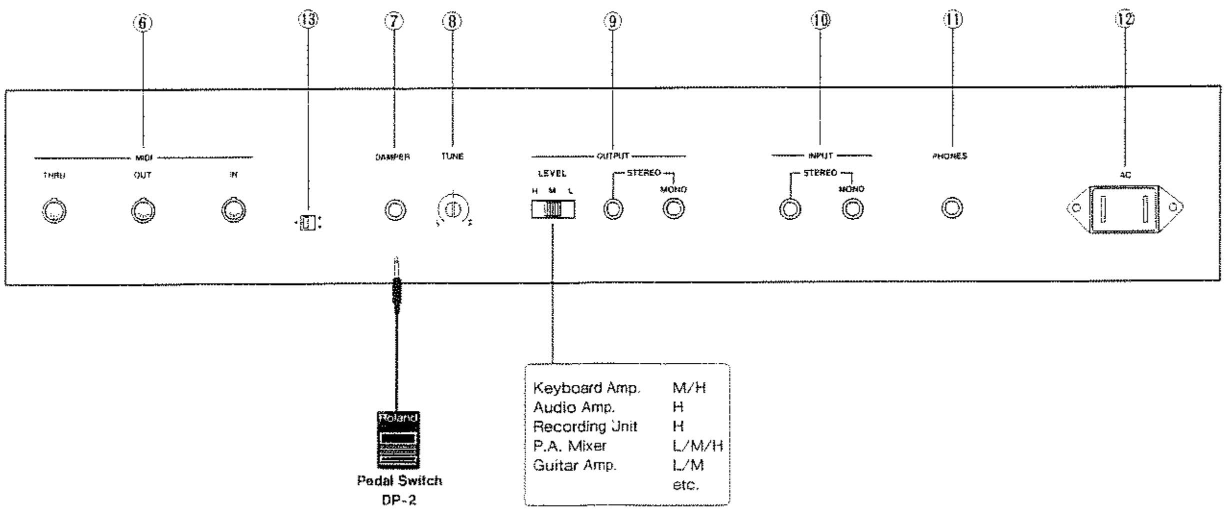
MODEL HP-100 MIDI Implementation Chart

Function	Transmitted	Recognized	Remarks
Basic Channel — Default Changed	1 1 – 16	1 1 – 16	
Mode — Default Messages Altered	3 POLY, OMNI OFF *************	1 POLY, OMNI ON/OFF MONO(M≠1) → 1, (M=1) → 3	
Note Number True voice	22 – 108 *************	0 – 127 21 – 108	
Velocity — Note ON Note OFF	○ × (9n v=0)	○ ×	
After Touch — Key's Ch's	× ×	× ×	
Pitch Bender	×	×	
Control Change — 64	○	○	Damper pedal
Prog Change True #	○ (0–127) *************	○ (0–7) 0 – 7	can be ignored by power-up setting
System Exclusive	×	×	
System Common — Song Pos Song Sel Tune	× × ×	× × ×	
System Real Time — Clock Commands	× ×	× ×	
Aux Messages — Local ON/OFF All Notes OFF Active Sense Reset	× ○ (123) ○ ×	× ○ (123–127) ○ ×	
Notes	When power up, ch-1 OMNI OFF and POLY are sent. When MIDI channel is changed, MODE is set at 3.		

Mode 1 : OMNI ON, POLY Mode 2 : OMNI ON, MONO ○ : Yes
Mode 3 : OMNI OFF, POLY Mode 4 : OMNI OFF, MONO × : No

■ Panel Descriptions





Front Panel

① **Power Switch**

② **Volume Knob**

③ **Key Transpose Button**
Hold this button down while pressing the key (F# to F) to which you wish to transpose.

④ **Tone Selectors**
By pressing one of these buttons, you can select a tone color you like. Select just one tone color at a time.

⑤ **Chorus Button**
Turn this button on (the indicator lights up), then rich chorus sounds will be obtained.

Rear Panel

⑥ **MIDI (Musical Instrument Digital Interface)**
MIDI is an international standard of the electronic musical instruments. By connecting the devices featuring MIDI Buses, their musical messages can be communicated by means of digital signal. (Refer to the separate volume "MIDI")

⑦ **Pedal Jack (Damper)**
This jack is used to connect the supplied Pedal Switch DP-2.
It will function just like a damper pedal of a usual piano.

⑧ **Tune Knob**
This is used to tune the HP-100 to other musical instrument. At its center position, A=442Hz.
• The HP-100 itself never gets out of tune, therefore tuning is not necessary.

⑨ **Output Jacks**

⑩ **External Input Jacks**
To this jack, you can connect a Rhythm Machine such as the TR-909, PB-300 or Bass Line TB-303, etc.

⑪ **Headphones Jack**
Standard stereo headphones can be connected. The sound from the built-in speaker stops automatically on connecting the headphones. Please adjust the volume with the Volume Knob.

⑫ **AC Socket**
•Make sure that the HP-100 is turned off, then connect the power cable to this AC socket.

• The selector switch ⑬ should usually be set to the "·" position. Just when using the PR-800 (Recorder Plus) or the PB-300 (Rhythm Plus), set it to ":"

Important Notes

Location

- Operating the HP-100 near a neon or fluorescent lamp may cause noise interference. If so, change the position or angle of the piano.

- Avoid using the HP-100 in excessive heat or humidity or where it may be affected by direct sunlight or dust.

Power Supply

- The appropriate power supply for this instrument is shown on its name plate. Please be sure that the voltage system in your country meets this.

- This instrument might generate heat while operating, but there is no need to worry about it.

Cleaning

- Use a soft cloth and mild detergent for cleaning.

- Do not use solvents such as paint thinner.

■ External Connections using MIDI

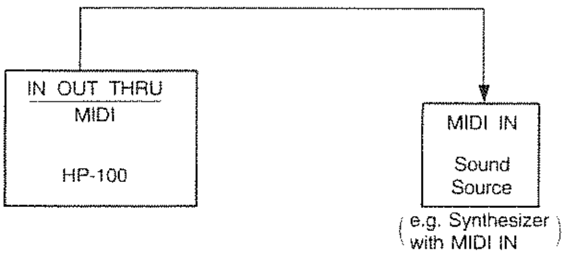
The HP-100 is the finest electronic piano on its own, but MIDI allows even more sophisticated performance by connecting other MIDI devices.

* Please read the separate book "MIDI".

■ Example Connections

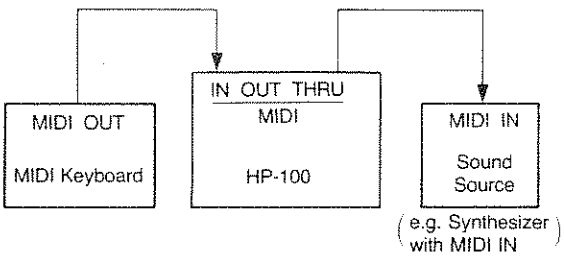
1) Setup with MIDI Sound Module

In this setup, both the HP-100 and the MIDI Sound Module can be simultaneously played.



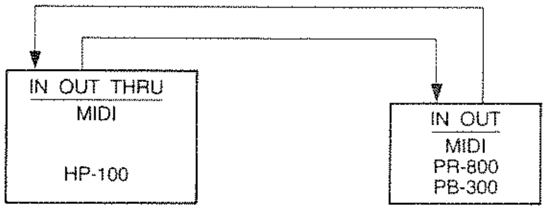
2) Controlling HP-100 by MIDI Keyboard

The HP-100 can be played by other MIDI Keyboard.

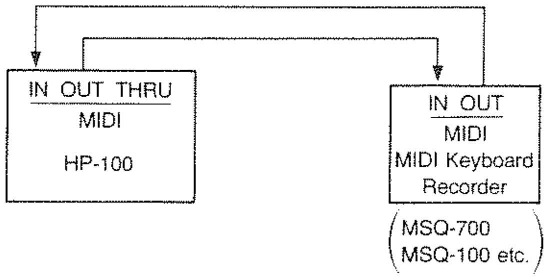


3) Setup with MIDI Keyboard Recorder

The Keyboard Recorder can record what is played on the HP-100 and play it back.



*Set the switch ⑬ to the ":" position.



MIDI Messages of the HP-100

The HP-100 can receive or transmit the following MIDI messages. Key On/Off (including Velocity) Channel Program Change Damper

■ Key Transpose

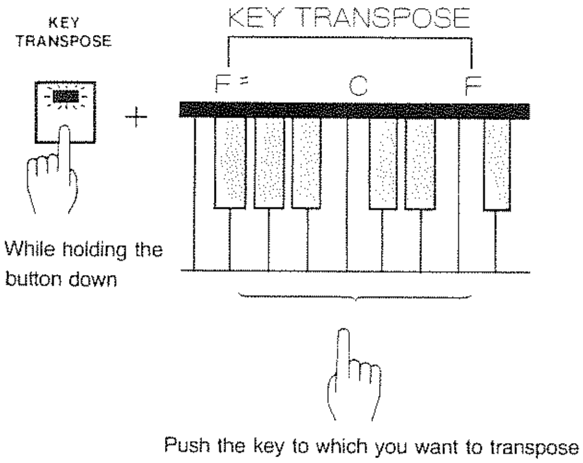
By using the appropriate key, you can shift the pitch of the entire keyboard up to the perfect forth upward or diminish fifth downward.

Operation

While holding the Transpose Button ③ down, press the key (F# to F) to which you wish to transpose.

While the button is being held down, the indicator flashes. When the button and the key are both released, the indicator will glow steadily showing that transposition is done.

Pressing the Transpose Button again will return the HP-100 to the normal condition (C key.)

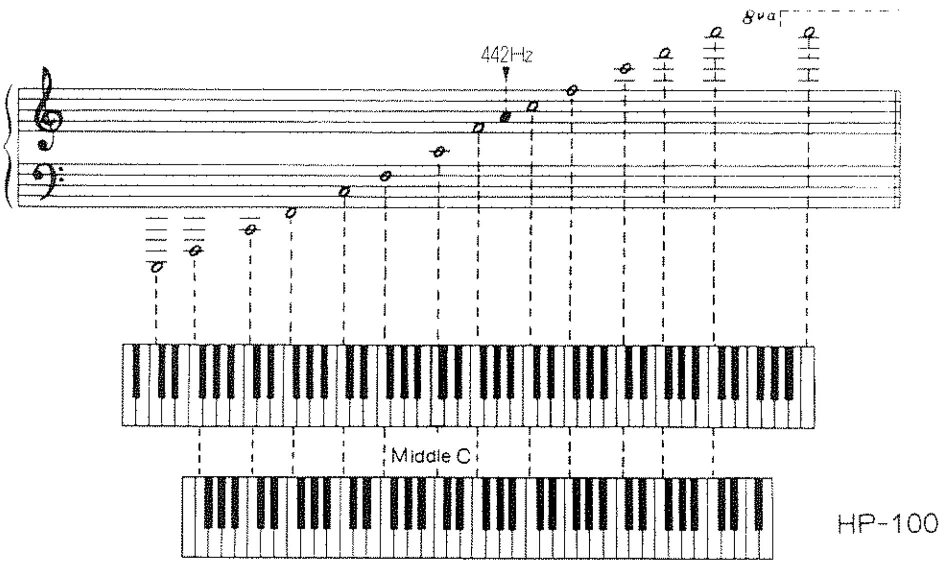


■ Specifications

Keyboard	76 keys, 8 voice polyphonic
Tone Selector Buttons	Piano 1, Piano 2, Piano 3, Harpsichord
Effect	Chorus On/Off
Performance Controls	Volume Tune (±35 cent)
Jacks	Output (Mono, Stereo), Ext. Input (Mono, Stereo), Phones, Damper Pedal, MIDI IN (DIN socket), MIDI OUT (DIN socket), MIDI THRU (DIN socket)
Selector Switch	Output Level Selector switch
Speakers	16cm × 2
Output Power	4.5W × 4.5W
Consumption	Shown on the name plate.
Dimensions	1152 (W) × 369(D) × 104(H) mm 45-3/8"(W) × 14-1/2"(D) × 4-1/8"(H)
Weight	15kg/33lb 2 oz
Accessories	Music Rest, Power Cord, Pedal Switch (DP-2)

***Specifications are subject to change without notice.**

■ Sound Range Diagram

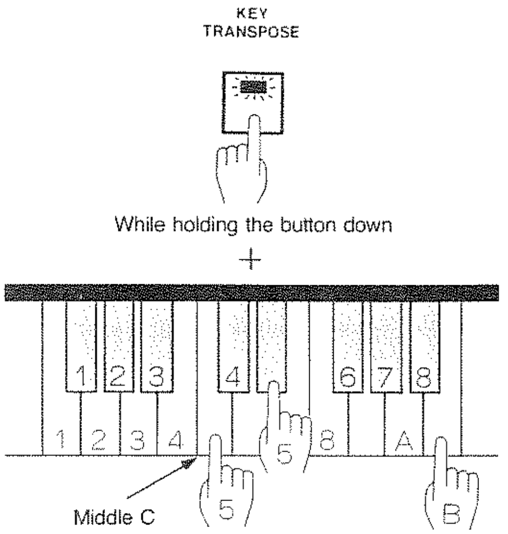


2. Program Change Message

a. Sending Program Change 0 to 127 (See page 7-4 Performance Information in "MIDI")

While holding the Transpose Button ③ down, enter the program change number you like by using the appropriate keys for Group (A or B), Bank (1 to 8) and Number (1 to 8). See the left picture and Table 1 to find the appropriate keys to be used.
For example, to send the Program Change number 100, press the Keys as shown below.

e.g.) To Send Program Change No. 100.



KEY TRANSPOSE
(Black Key F# ~ A# : 1 ~ 8
White Key F ~ F : 1 ~ 8
Group A·B : A·B)

Table 1

	BANK \ NO.	1	2	3	4	5	6	7	8
A	1	0	1	2	3	4	5	6	7
	2	8	9	10	11	12	13	14	15
	3	16	17	18	19	20	21	22	23
	4	24	25	26	27	28	29	30	31
	5	32	33	34	35	36	37	38	39
	6	40	41	42	43	44	45	46	47
	7	48	49	50	51	52	53	54	55
	8	56	57	58	59	60	61	62	63
B	1	64	65	66	67	68	69	70	71
	2	72	73	74	75	76	77	78	79
	3	80	81	82	83	84	85	86	87
	4	88	89	90	91	92	93	94	95
	5	96	97	98	99	100	101	102	103
	6	104	105	106	107	108	109	110	111
	7	112	113	114	115	116	117	118	119
	8	120	121	122	123	124	125	126	127

b. Receiving Program Change 0 to 7

The HP-100 can receive Program Change numbers 0 to 7. This enables to externally select any of the 8 patches (4 tone colors and 2 kinds of chorus settings).

If you do not want the HP-100 to receive Program Change message, turn the piano on while holding the button ③.

	Tone Color	Chorus Effect
0	Piano 1	OFF
1	Piano 2	OFF
2	Piano 3	OFF
3	Harpsichord	OFF
4	Piano 1	ON
5	Piano 2	ON
6	Piano 3	ON
7	Harpsichord	ON

* For example, when the Program Change Number 5 is received, "Piano 2" is called, and the Chorus effect is turned on.

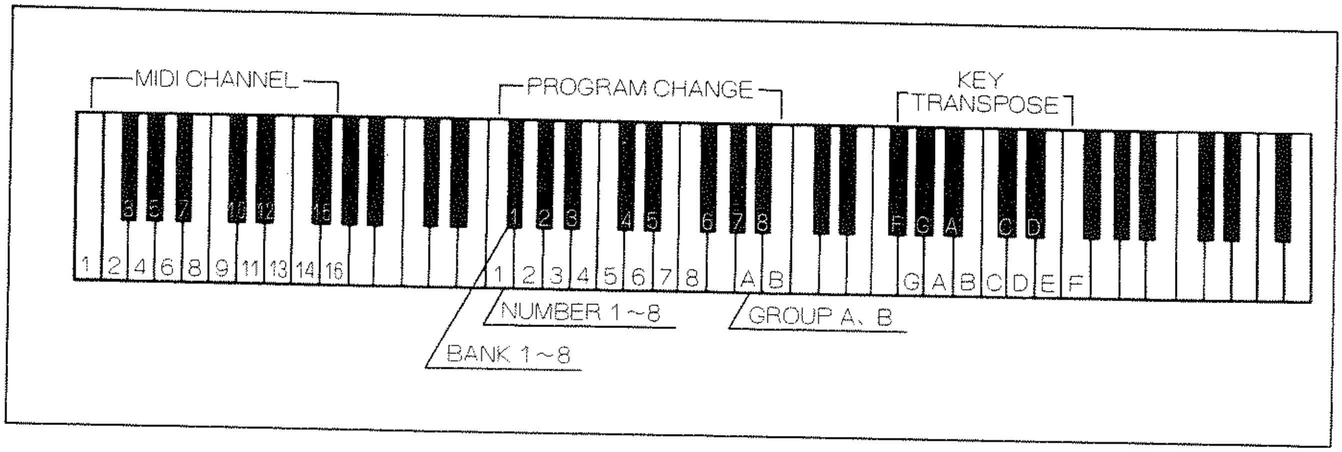
NOTE:
Program Change messages are not transmitted or received while any key on the keyboard is being pressed.

3. Key On/Off & Damper Messages (See page 7-4 "MIDI".)

These two messages will be received without taking any special operations.

NOTE:
When the Transpose function is used, the note number sent from the MIDI OUT will be changed. That is, transposed note number (= note number of the Standard pitch) is transmitted.

NOTE:
The Transpose function does not work on the Key Information received from MIDI IN.



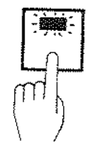
1. Changing MIDI Channels

At power up, the HP-100 defaults to Channel 1 and OMNI ON.

→ Refer to page 8–6. Modes in the separate book "MIDI".

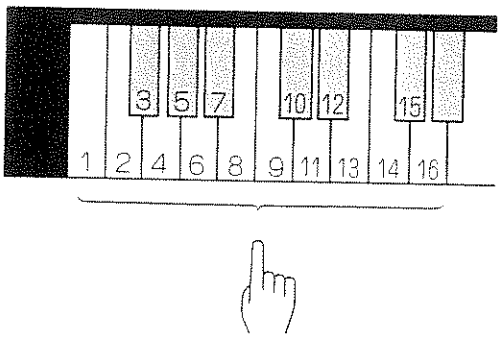
While holding the Transpose Button ③ down, press the appropriate key for the MIDI Channel (1 to 16).

* MIDI does not allow to set different channel numbers for receive and transmit. That is, the MIDI channel you have set is both for receiving and sending messages.



While holding the button down

+



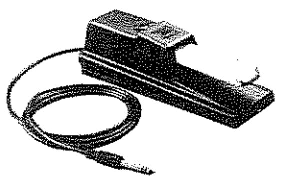
Push the Key which corresponds to the Channel number you want.

Options

- Headphones RH-10



- Pedal Switch DP-6



- Stand KS-100

For Canada

CLASS B **NOTICE**

This digital apparatus does not exceed the Class B limits for radio noise emissions set out in the Radio Interference Regulations of the Canadian Department of Communications.

CLASSE B **AVIS**

Cet appareil numérique ne dépasse pas les limites de la classe B au niveau des émissions de bruits radioélectriques fixés dans le Réglement des signaux parasites par le ministère canadien des Communications.

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